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ABSTRACT

Children in modern literate cultures often begin learning to write and read before they begin school, and continue to use written language, and to develop writing and reading abilities, in nonschool settings even as they attend school. It is often the case as well that the writing and reading demands of school differ from those of nonschool writing and reading activities, and that the literacy skills emphasized in school do not, moreover, coincide with those needed or desired in the working world. Recent scholarship on writing and reading outside the school provides the vehicle for exploration of the relatedness of reading and writing as social practices and consideration of the implications of this social view of literacy outside of school for reading and writing instruction in school. The areas of scholarship examined in depth are: (1) recent research on young children's early reading and writing, often called "emergent literacy"; (2) linguistic patterns children acquire in their development of spoken language and the relation of those patterns to writing activities in school; and (3) the similarities and differences between literacy demands in school and at work. Implications for school policy, curriculum development, and teaching practice are suggested. (One hundred and twenty footnotes are attached.) (RS)

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Center for the Study of Writing

Occasional Paper No. 8

WRITING AND READING IN THE COMMUNITY

Robert Gundlach
Marcia Farr
Jenny Cook-Gumperz

March, 1989

University of California, Berkeley
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WRITING AND READING IN THE COMMUNITY

by

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It is often assumed that school is the place where children learn to write and read, and that the main goal of school writing and reading instruction is to prepare students for the literacy demands of adult life, particularly in the workplace. In this view, writing and reading are relatively solitary activities which require the individual to draw upon a number of skills. The job of teachers, then, is to teach these skills and to help the student integrate them into the complex processes of writing and reading entire texts. But recent scholarship has raised doubt about these assumptions. In fact, children in modern literate cultures often begin learning to write and read before they begin school, and continue to use written language, and to develop writing and reading abilities, in nonschool settings even as they attend school. It is often the case as well that the writing and reading demands of school differ from those of nonschool writing and reading activities, and that the literacy skills emphasized in school do not, moreover, coincide with those needed or desired in the working world.

In this chapter we review recent scholarship on writing and reading outside of school--that is, in the community, both at home and in the workplace. Through this review, we explore particularly the relatedness of writing and reading as social practices, and consider the implications of this social view of literacy outside of school for writing and reading instruction in school. Our premise is that learning to write and read involves more than being taught in school, in part because such learning occurs in a range of social contexts. We do not mean to suggest that the role of teachers is insignificant. Rather, our point is that when teachers of writing and reading consider the broader social dimensions of their work, they may thereby increase their understanding of how to contribute most effectively to their students' learning.

We have chosen to emphasize three particular topics. First, we discuss recent research on young children's early writing and reading, focusing on what some scholars have termed "emergent literacy." This section of the paper, "Children's Writing and Reading in Nonschool Settings," was written by Robert Gundlach. Our second section, "Literacy and Language Variation at Home and at

School," written by Marcia Farr, discusses the linguistic patterns children acquire in their development of spoken language and analyzes the relation of those patterns to the demands of written language activities children meet in school. If the first section suggests the value of establishing continuities between young children's experience of writing and reading at home and in school, the second section emphasizes ways to approach key contrasts between home and school language expectations. Our third section projects beyond the school years into adult uses of literacy. This section, "Writing and Reading in the Workplace," written by Jenny Cook-Gumperz, considers both similarities and differences between literacy demands in school and at work, offering an analysis of how writing and reading activities are embedded in social relationships in work settings.

In a final section we draw implications from all three discussions for school policy, curriculum development, and teaching practice. Let us now turn to the particulars, beginning with young children's early experience with written language.

CHILDREN'S WRITING AND READING IN NONSCHOOL SETTINGS

Roger Brown, writing in 1974 about the surge of scholarly interest in language acquisition during the 1960s and early 1970s, remarked that "all over the world the first sentences of young children are being as painstakingly taped, transcribed, and analyzed as if they were the last sayings of the great sages." Which, he added, "is a surprising fate for the likes of 'That doggie,' 'No more milk,' and 'Hit ball.'[1] More recently still, in the late 1970s and the early 1980s, a similar fate has befallen the first scribbles and seemingly makeshift spellings of slightly older preschool children. Careful analyses have been performed on such texts as EFUKANOPNKAZIWILGEVUAKANOPNR (a five-year-old's rendering of "If you can open cans, I will give you a can opener")[2] and *JJ l'''*, which, as its 4-year-old author explained, is a "drawing with rhymes" accompanied by "bullets making gun noises."[3]

This attention to preschool children's earliest steps in learning to write and read has been the dominant focus in recent discussions of children's written language use in nonschool settings. Some studies of preschoolers have started from the premise that a relatively small percentage of children are "early readers"[4] or "young fluent readers."[5] The goal of these studies has been to determine what can be learned from exceptional children that might be applied to reading instruction for children who are less precocious. But the more common guiding premise in recent research has been that all children growing up in literate societies encounter print before they start school, and, just as they learn spoken language in the preschool years, they begin to acquire written language as well. The main focus of recent research has been on the development of literacy in typical children, not just in the exceptional early learners.

How, though, to determine what is "typical"? Researchers have taken two approaches. The first approach concentrates on general cognitive strategies. These studies search for common, perhaps even universal, developmental trends in the way children's minds construct a working understanding of the forms and functions of written language. The second approach concentrates on how children learn reading and writing as social practices, as culturally formed ways of doing, knowing, and being. From this point of view, "typicality" is relative to the habits and values of specific groups. Studies taking this approach seek to explain how children become members of particular communities of readers and writers.

Both approaches suggest a close relationship between writing and reading. The first approach assumes that the child's cognitive reinvention of written language provides the child with the fundamental knowledge, or competence, for both receptive and productive uses of written language--that is, for both writing and reading. The processes of reading and writing may be different, but both draw on common linguistic knowledge and require overlapping cognitive strategies for meaning-making.

The second approach assumes that a writer and a reader in any given situation must interact on reciprocal terms, working with a shared understanding of particular conventions of written communication that allow them to proceed with some confidence of success in establishing shared or negotiated meaning, whether the exchange centers on a shopping list, a personal letter, a poem, a novel, or a formal business report. Even though written texts allow for communication across space and time, and permit exchanges between people who otherwise do not know each other and have no other form of contact, learning to participate in such communicative exchanges is nonetheless a matter of socialization, a matter of learning to enact particular social roles. The efforts of a writer are always partially governed by the anticipated needs and desires of the reader, and of course a reader's efforts are always partially directed by the purposes and interests of the writer. Indeed, as Nystrand[6] points out, all written communication depends on some form of reciprocity between writer and reader. To succeed in one role, you need to have some understanding of the other.

What has research conducted from these two points of view taught us? Below we assess what we know about young children's writing and reading in nonschool settings.

We know, first, that many children *do* begin experimenting with writing and reading well before they meet literacy instruction in school, and indeed before they attend school at all. Teale and Sulzby, listing the conclusions they draw from studies to date, state the point in strong terms: "Literacy development begins long before children start formal instruction. Children use legitimate reading and writing behaviors in the informal settings of home and community."[7] The use of the word "legitimate" in this formulation is noteworthy, as it suggests that some observers may not find evidence of reading and writing activity in the behavior of

the children Teale and Sulzby here refer to. Surely it is true that scholars, educators, and parents alike may be inclined to discount the young child's "pretend" reading or undecipherable scribbling as evidence of the onset of literacy development.

Such a view has much of the authority of tradition on its side. Writing and reading are viewed by most adults as highly conventionalized acts; unless a reader understands the socially established meanings of the words on the page, or unless a writer produces interpretable spellings and sentences, he or she cannot, in the traditional perspective, be said to be truly reading or writing. In this view, literacy learning begins with mastering simple matters first: the formation of the correct shape of letters, the discrimination of sound contrasts in decoding, the comprehension and spelling of simple words and sentences, the use of fundamental punctuation marks, and so on. Mistakes are to be avoided, even at the start; the learner masters the basics first, then moves up to more sophisticated forms.

Although there is some disagreement about precise definitions,[8] recent research on preschool children's early literacy learning is unified by its rejection of this traditional view of the nature of learning to read and write. As Teale and Sulzby put it, those studying emergent literacy in the young child believe that in previous research programs, "the search for skills which predict subsequent achievement has been misguided because the onset of literacy has been misconceived."[9] A more accurate picture, they suggest, is one that portrays the young child as an active learner, developing not isolated reading or writing skills but a coordinated understanding of the uses and forms of written language and a working knowledge of the processes of reading and writing. This broad understanding develops slowly, and perhaps by stages, but from the start it embraces both purpose and form, intention and structure--reading and writing are learned as complex, meaningful activities, not as aggregates of separate skills. Furthermore, the learning of written language is connected with the learning of spoken language. "The child develops as a *writer/reader*," Teale and Sulzby assert. "The notion of reading preceding writing, or vice versa, is a misconception. Listening, speaking, reading, and writing abilities (as aspects of language--both oral and spoken) develop concurrently and interrelatedly, rather than sequentially."[10]

Research designed to explore and test these claims is quite new, and scholars have only begun to recognize the full complexity of the issues involved. As one observer of recent scholarship on children's "awakening to literacy" suggests, "Many important insights and much data relevant to literacy exist--possibly more than any one individual or even one discipline can be expected to know or to take account of--but there is also a great deal to be learned"; and "Literacy is complex and multifaceted, so it should not be surprising that individuals fail to agree on its nature or on how it should be taught."[11] But Teale and Sulzby are unquestionably right to state in the strongest terms that an understanding of children's long term development of writing and reading ability must include a recognition of the important literacy learning that most children in

a society like ours undertake before they arrive in first grade or even kindergarten. To recognize this early phase of learning is to appreciate the knowledge and abilities many children bring to school with them. It is also to confront the considerable differences in early learning experienced by children in different settings and different families, and hence to acknowledge the varying orientations to writing and reading that even the youngest school-age children bring to the literacy instruction and activities they encounter in the classroom.

Research focused on children's common cognitive strategies in the course of literacy acquisition emphasizes the knowledge and abilities many children develop by the time they go to school. The most extensive research program of this kind has been conducted by Emilia Ferreiro, who has formulated the theoretical problem of studying children's literacy development in terms of Piagetian principles of genetic epistemology. Understanding children's literacy development thus becomes understanding a "complex psychological problem."[12] Written symbols, Ferreiro notes, "can be regarded as objects of the external world and, as such, may become objects to think about."[13]

The issue for research, then, is how children develop in their thinking about written symbols, how they acquire a working knowledge of the logical system of rules or principles that coordinates the use of written language. Writing and reading may be social practices, varying in cultural meaning and function, but children do not, Ferreiro argues,[14] merely absorb social practices and information passively. Rather, they are active participants in their own learning, employing their own logical guidelines in interpreting the objects and practices they observe in their social worlds. They transform the information they take in so that it conforms to the logical understandings (or schemata) they already have--a process Piaget identified as cognitive assimilation. When children encounter information (principles of orthography, for example) that conflicts with what they know, they either fail to learn the conflicting information, or they modify their current logic to accommodate the new principles.

This cognitive dynamic of learning as the selective transformation of objects and practices encountered in the environment, with the child's mind engaged in a continuous, nonconscious balancing act between assimilation and accommodation, will surely be familiar to readers of Piaget. Ferreiro seeks to use this theoretical framework to uncover a pattern in children's successive understandings of the system of written language that "is not only chronological, but developmentally ordered, and thus constitutes a psycho-genetic progression."[15] She focuses particularly on the earliest phase of literacy learning. She observes, for example, that the "child who makes an approximate correspondence between sounds and letters may have spelling difficulties, but he is already functioning within the alphabetic system of writing." Based on this observation, she asserts that researchers need "to understand the conceptions that are at work even earlier, such as with those children who use unconventional signs but organize them in a linear order that is very different from the order of elements in a drawing."[16]

Ferreiro's careful and complex analyses elucidate the logic young children use as they cope with the literacy tasks that the investigator has put to them. The following passage suggests both the texture and some of the central themes of Ferreiro's work; it is from an account of her studies of 4-and 5-year-old Spanish-speaking children:

> To take into account the properties of the text [as it has been read aloud to them] and, at the same time, to adjust the anticipation of meaning to the hypothesis that only nouns are written, children make various attempts, one of which is to try a one-to-one correspondence between segments of the text and syllables of the word. For instance, for the three segments of *el pato nada*, several children proposed "pa-ti-to" (little duck). When syllables are made to fit segments of the text, all segments are treated as equivalent, regardless of their actual length; the number of letters of a segment is taken into account only when the reference is to words, because for the child, there is a condition that must be fulfilled: a complete word cannot be written with less than a given minimum number of letters--usually three.[17]

Ferreiro offers impressively reasoned analyses that are driven by the larger goal of discovering a predictable universal progression of formulations in children's tacit knowledge of written language as a "socio-cultural object." It must be said, however, that the realization of this ambitious scholarly goal remains a long way off. And indeed it may turn out that the diversity of the cultural forms and social functions of written language will ultimately render the goal unrealizable. In the meantime, much of value can be found in Ferreiro's research. She points to the abstract system of principles that children learn from the start of their development as writers and readers. In this respect she implies that the activities of writing and reading are both guided by a single abstract understanding of the system of written language, however different the two activities may be as social practices. Furthermore, she argues convincingly that the young preschool child's first steps in literacy development can be viewed, on the one hand, as the natural result of the child's developmental reasoning strategies, and, on the other hand, as steps in a difficult cognitive project: "The link between print and oral language is not immediately grasped by any child. Even those who grow up in an environment rich in literacy experiences . . . have considerable trouble understanding the relationships between oral language and the graphic forms."[18]

On the issue of universals in children's literacy development, Ferreiro successfully underscores the commonality, not of the content of children's literacy learning, but of the cognitive dynamics that impel and shape the direction of that learning. Concluding her report of a particularly interesting study of Santiago and Mariano, two Spanish-speaking preschool children, she argues that the two children, whose observable paths of learning differ considerably, nonetheless have much in common as they learn to manage the conventional written forms of their names.

Both young children "try to reconcile contradictory evidence; both pass through periods of acute [cognitive] conflicts [which, Ferreiro notes, can produce great anxiety for some children]; both select (from the information available) that which they are able to assimilate; both disregard information for very precise reasons; both are not satisfied until they find a general coherent interpretive system."[19]

Clifford Geertz, in his essay, "The Way We Think Now: Toward an Ethnography of Modern Thought," pinpoints what he describes as the "animating paradox within the social sciences": we have come to recognize that human thought is "wondrously singular as process" and yet "spectacularly multiple as product."[20] Ferreiro and others following an essentially Piagetian model of cognitive development in their studies of children's literacy acquisition emphasize that remarkable singularity. Yet written language--its uses, its forms, its value--is a product and a tool of human cognition; it is indeed spectacularly multiple. Studies that focus only on common human cognitive strategies cannot adequately acknowledge the great variousness of reading and writing as social practices in different places and among different people. Hymes makes this point forcefully: "Models [of language development] which appeal to a universal, innate, non-historical, acultural, socially aspecific goal immediately fail in the presence of writing, which is patently not innate but historically invented and diverse in its cultural forms and social functions."[21]

It is easy to accept this notion in principle, and at the same time to retain an intuitive sense that certain kinds of literacy are more "natural" than others. Perhaps one explanation for this may be found in the general image of language ability derived from recent linguistic theory. As Litowitz observes:

> American linguists since Chomsky have been preoccupied with abstract, formal structures that represent the underlying competence of a lone, ideal speaker-hearer. The limitations of a psycho-linguistics that relies on this kind of linguistics are profound: an ideal speaker-hearer has neither cultural nor personal history, no family, no . . . inner reality.[22]

But probably the source of this intuitive sense in most instances is less theoretical and more experiential, a form of reflexive ethnocentrism that accords special privilege to our earliest experiences and successes with language. Eudora Welty offers a glimpse of this phenomenon in an observation about her own early reading experience: "It had been startling and disappointing to me to find out that story-books had been written by *people*, that books were not natural, coming up of themselves like grass."[23] All the more important, then, to acknowledge that, as the aphorism has it, books do not teach the use of books--people do. Writing and reading are cultural, not natural, and the social practices of written language use vary depending on situation and cultural group. In recent years researchers have begun to investigate how the social practices of writing and reading are learned

and taught in homes and other settings in which some preschool children become participants in particular communities of writers and readers.[24]

Although much of this work is still exploratory, several themes have already emerged. One recurring theme is that social interaction is probably the key element in the context of children's early experience with written language. Surely it makes a difference that children have particular "print environments" that offer them the data from which they infer general principles of written language form and function. But even more significant are the human relationships in which a child learns not only what written language *is* but also what it *does*.

Some studies focus on how adults (usually parents) orient preschool children to particular uses of written language by firmly managing children's early experiences with writing and reading. Most frequently studied are the lessons young children learn from the experience of having books read aloud to them. Reviewing a number of studies with this focus, Snow and Ninio suggest that children whose parents read aloud to them are likely to learn a series of "literacy contracts":

1. Books are for reading, not for manipulating.

2. In book reading, the book is in control; the reader is led.

3. Pictures are not things but representations of things.

4. Pictures are for naming.

5. Pictures, though static, can represent events.

6. Book events occur outside real time.

7. Books constitute an autonomous fictional world.[25]

Some children's earliest experiences with writing are also tightly managed by adults. Snow, for example, presents a transcript of a conversation between a mother and her 31-month-old son named Nathaniel which traces the mother's efforts to get her son to join her in the task of spelling his name. Snow comments that the mother's continual attempts to direct her son's attention to the task she has set for him represents a striking instance of an adult's speech which is pointedly not semantically contingent--that is, not built upon what the child has said or done, and in that sense not directly responsive. Snow likens the mother's managerial way of speaking in this exchange to her nonverbal behavior during the same episode: "She twice even interrupted [Nathaniel's] concentration on the letters to clean out his ears."[26]

If the work reviewed by Snow and Ninio establishes the theme that parents orient their children to the assumptions and practices of literacy, Heath's ethnographic studies of particular communities' "ways with words" add three important themes. First, both the adults' style of interaction and the lessons preschool children learn about writing and reading vary from community to community. In one community Heath studied, parents believe that "their task is to praise and practice reading with their children"; parents in another community believe "that the young have to learn to be and do, and if reading is necessary for this learning, that will come."[27]

A second theme emerges from Heath's explanation of this difference: writing and reading activities are embedded in the larger flow of activity in people's lives, including the use of other means of communication. Since patterns of living vary from group to group, so do both the patterns of language use that children might observe and the habitual interactions by which adults orient young children to the possibilities and requirements of literacy. Heath notes that in Roadville and Trackton, two contrasting working class communities she studied, residents

> have a variety of literate traditions and in each community these are interwoven in different ways with oral uses of language, ways of negotiating meaning, deciding on action, and achieving status. Patterns of using reading and writing in each community are interdependent with ways of using space (having bookshelves, decorating walls, displaying telephone numbers) and using time (bedtime, meal hours, and homework sessions). Habits of using the written word also develop as they help individuals fulfill self-perceived roles of caregiving and preparing children for school.[28]

A third theme evident in Heath's studies is that the dynamics of literacy learning in adult-child interactions are complicated indeed. The child plays an active role, not only cognitively, inferring general principles from bits of experience, but socially as well. The way children participate in interactions from which they may learn about writing and reading is determined by at least two general motives. On the one hand, children seek to cooperate, to learn how to do what is wanted or expected. This motive no doubt helps to explain the behavior of young children during book-reading activities with their mothers in the community Heath calls "Maintown": children as young as 6-months-old "give attention to books and information derived from books," "acknowledge questions about books," and "accept book and book-related activities as entertainment."[29] On the other hand, children seek to increase their power in human relationships. They aim not only to cooperate but to exert control, to determine the direction of interactions. This motive is abundantly evident in children's attempts to disrupt adult-led activities, including book-reading. But it also impels some children to seek the manager's role of such interactions, as in the case of the 3-year-old children of Maintown who, faced with the demand during book-reading to "listen and wait as an audience, . . . often choose to 'read' to adults rather than to be read to."[30]

Studies focused on young children's early writing have given less emphasis to adult-child interaction than those focused mainly on reading. Some studies, such as those by Taylor[31] and Harste, Woodward, and Burke,[32] have emphasized the young child's writing as an expression of his or her developing literacy knowledge and ability. Both of these analyses regard early literacy as culturally specific, derived from family experience and particularly from "demonstrations" of specific written language forms and functions. Other studies of early writing have emphasized the creative capacities of children experimenting on their own with written language, often in ways mysterious to the adults around them. Here the focus is on the child's linguistic and cognitive resourcefulness, as in Glenda Bissex's *GNYS AT WRK*, a case study of the writing and reading development of Bissex's son Paul. The title of Bissex's book is taken from the second half of a sign 5-year-old Paul wrote and placed above his desk: DO NAT DISTRB GNYS AT WRK. Bissex uses Paul's text as the occasion for spelling out the implications of her study:

> The GNYS (genius) at work is our human capacity for language. DO NAT DSTRB is a caution to observe how it works, for the logic by which we teach is not always the logic by which children learn.[33]

Bissex's comments may be read as support for the more purely cognitive approach to understanding early literacy exemplified by the work of Ferreiro and others. But her remarks also serve as a useful reminder to researchers studying what Cook-Gumperz[34] has called children's "social construction of literacy"--the social processes by which children become participants in particular communities of writers and readers. Bissex's comments remind us that although children learn the expressive and communicative resources that become available to them as they grow up in specific social settings, they adapt these resources to serve their own developmental and individual purposes. These purposes, though ultimately culturally shaped, are not necessarily similar to the conventional purposes of the adults they interact with or observe. Part of learning to read and write is finding a way to make written language one's own.

In this process of making written language their own, children often incorporate writing and reading activities into their play. They thus create opportunities to explore the potential of writing and reading outside the immediate context of social interaction. This allows them to experiment with the tools of writing and reading and to improvise freely with the writing and reading roles they have been asked to adopt themselves or have seen enacted by important people in their lives. Children sometimes use play activity as an opportunity to explore the reciprocity between writer and reader by shuttling back and forth between writing and reading roles, much as children sometimes play games in which they cast themselves both as parent and child, or teacher and pupil.

Another dimension of the process by which children begin to take personal control over the social practices of writing and reading is the tendency of some young children to combine the use of writing with the use of other representational systems--speech, drawing, gesture, the creation of physical designs with objects of various kinds.[35] Observing children at play with literacy--and reading the distinctively obscure texts they produce--can lead us to underestimate the social character of both the content and dynamics of children's writing and reading development. But writing and reading do not exist independently of the social contexts in which they gain their meaning. Writing and reading are each, finally, umbrella terms for many specific culturally-bound activities that vary in character, consequence, and significance.

Recognizing the variousness of writing and reading--acknowledging that "the relative importance of [written] language among other modes of communication, its role as resource or danger, art or tool, depends on [what people make] of it"[36]--does not require advocating a school literacy program that gives equal importance to all possible forms of literacy. In fact, the premise that "particular ways of using and interpreting print are not 'natural' but develop as part of early social learning within particular cultures"[37] leads to the recognition that school writing and reading experiences are always organized according to cultural choices and that formal literacy instruction is necessarily an embodiment of the skills, concepts, and attitudes valued by a particular group of people.

Since all literacy is in important respects cultural literacy, the relationship between writing and reading is not inherent in the two activities abstractly considered, but rather is a function of the specific relationships established between the roles of writer and reader in particular communities. Hence, one key job for educators is to determine not only the forms of written language that should be taught, but also the writing and reading roles students should be encouraged to adopt in school--to determine, that is, the sort of community of writers and readers a school should be if it is to serve its cultural function well. Another important task for educators is to find ways to offer every child a fair chance to participate successfully as a member of the school community of writers and readers. To do this second job well, educators need to take into account the active and various preschool literacy experiences that many children bring to school with them.

LITERACY AND LANGUAGE VARIATION AT HOME AND AT SCHOOL

As we have illustrated in the previous section, children don't go to school as empty vessels that are to be filled up with "school knowledge." Although there is much for them to learn during their school years, all children already have acquired considerable knowledge about the world and the particular community in which they live before they begin formal schooling. They have, in other words, considerable facility with particular cognitive processes.

A major aspect of this cognition concerns the language used in their communities, both the formal structure (grammar) of that language and the culturally based ways in which that language--in both its oral and written modes--is used within their communities. As we also discussed in the previous section, some cognitive processes are shared by all children, whereas some vary sharply from one cultural group to another. In other words, the community in which children are enculturated determines to a great extent what it is that they know.

The knowledge that a person has about his or her language has been referred to as his or her "communicative competence."[38] Communicative competence in this sense involves both the ability to generate, for example, English sentences, with words in the right order, and the ability to use those sentences appropriately in different contexts, to convey slightly different meanings. Although children entering kindergarten have not completely finished the acquisition of their native language, much of that process is complete, and they certainly can be considered full-fledged speakers of the language.

Beyond their knowledge of spoken language, most pre-school-aged children in a highly literate society such as ours also know a great deal about written language. Print surrounds them, from MacDonald's signs to labels on tin cans and cereal boxes. In many homes, moreover, books and magazines abound, and children frequently are read to.

Although generalizations often have been made equating such literacy in the home with middle class parents, several studies have shown much literacy activity in white, black, and Hispanic working class homes.[39] So it is important for us to realize that low socioeconomic class does not mean a lack of experience with written language (nor, in fact, as many teachers would attest, can we assume that all middle class children do have such experiences).

Teachers, then, can assume well-developed linguistic abilities--highly developed oral language as well as some understandings of writing and reading--in elementary school children. Because of the importance of teacher expectations in student achievement, it is crucial for teachers to be aware of such resources in their students. And, it is equally crucial for them to realize that these resources can be assumed on the part of *all* normal students, no matter what ethnic or social class background they are from. Excluding a very small percentage of people who have genuine language disabilities, this is true regardless of other varying individual abilities, such as I.Q. The danger is that normal children from non-mainstream cultural groups will be seen as abnormal, language-delayed or disabled, because their highly developed linguistic (and cognitive) abilities may not include the ability to speak standard English, nor to assume comfortably mainstream social roles which involve writing and reading activities.

Viewing non-mainstream children and adolescents as having linguistic or cognitive *deficits*--when in reality their language use is simply *different* from

standard English usage--can have serious consequences on their achievement in school. Much research has documented such language differences among various non-mainstream groups, and some findings from this research will be presented below. In spite of this available body of knowledge, however, the notion of such children having linguistic and/or cognitive deficits has persisted. This may be due, in part, because of a lack of understanding of linguistic systems and of linguistic--and cultural--variation.

Variation, of course, is a natural part of all languages and of all language use. All languages, even those with a small number of speakers, have dialects[40]--either regional ones (e.g., southern American English) or social ones (e.g., Vernacular Black English). In addition to differences between dialects (e.g., differences in the way a word is pronounced), everyone (standard dialect speakers and nonstandard dialect speakers alike) use more or less formal language in different contexts, depending upon the situation (who they are speaking with or writing to, the topic being discussed, etc.).

Another kind of variation exists in the ways in which speaking, writing, and reading are *used* in particular communities. Language use--oral as well as written--is always a social practice in a particular community and, as social practices vary from community to community, so does language. The social roles in which writing and reading, for example, are used can differ distinctly from one community, or culture, to another. Scollon and Scollon[41] provide us with an example of this.

In their research on Northern Athabaskans in Alaska, the Scollons show how the deep respect for individual differences in this culture leads its members to negotiate meaning jointly, rather than to impose it on listeners (and, by extension, readers). The making of oral narratives, a frequent occurrence among Athabaskans, emphasizes cooperation between narrator and audience to the extent that stories change according to the needs of a particular audience.

When members of this culture write, we would expect their texts to display the same kind of reliance on audience as their ways of speaking do. If listeners are unknown, and, similarly, if the audience for a piece of writing is unknown (as it is, at least ostensibly, for most school writing), the tendency is to remain silent--or to express oneself only tersely. So, as teachers of other Indian cultures have noted, eliciting prose, in school, which exhibits characteristics of the "mainstream" version of academic writing (i.e., prose that is explicit and elaborated) can be very difficult. This apparently is because using language (or literacy) in such mainstream ways conflicts with traditional Athabaskan ways.

The Athabaskans, of course, are not the only people who use language, and literacy, in culturally-specific ways. All ways of using language, oral and written, are embedded in cultural beliefs and conventions,[42] and this is as true for mainstream as for non-mainstream language use. Consequently, the concept of "good

writing" which underlies writing instruction in school is embedded in the cultural beliefs and conventions by which "schooled" people live. As members of what Street[43] terms the academic subculture of western society, schooled people immerse themselves in certain kinds of oral and written language, and they value objectivity and explicitness in such language, particularly in writing.

Because school in our society is part of mainstream culture, the language use in school--for writing, reading and speaking--closely resembles the language use of mainstream culture. For example, the Heath study which we discussed earlier[44] shows, among other things, how members of the mainstream culture in the community she studied used "expository talk" which was similar to school-taught expository prose on the job (in this study as mill executives and teachers) and at home as parents. In contrast, non-mainstream cultural groups use language in ways that often do not resemble, in fact sometimes conflict with, "school" language. In the next section we will review briefly what we know about speaking, writing, and reading among a variety of non-mainstream groups from research in this area.

Non-Mainstream Varieties of English

Ethnic variation in oral language has been investigated by numerous studies during the last two decades. This work has explored a variety of American English dialects, including Vernacular Black English;[45] Puerto Rican English;[46] Appalachian English;[47] varieties of American Indian English;[48] and others.[49] The primary finding of all this work is that nonstandard varieties of English, in fact of any language, are as complex and as regularly patterned as are standard varieties. Moreover, these studies have provided a considerable amount of information about the specific linguistic features in different varieties of American English.

In addition to sociolinguistic studies of language structure, other studies have focused on language function, or use. They have taken place both within classrooms[50] and within home and community contexts.[51] This work has found that ways of using language can vary extensively from one cultural group to another and that such differences can cause communication to break down between speakers from different groups. Schools, of course, are one significant place in our society in which members of different cultures meet; once there, however, everyone is expected to interact according to the linguistic patterns of the "school culture."[52]

Studies focused specifically on variation in written language are not as numerous as those focused on variation in oral language. Here work has investigated the writing of nonstandard dialect speakers[53] or literacy in homes and other non-school community settings.[54]

The research on language variation and writing has identified particular linguistic features characteristic of the "home language" of various ethnic groups which occur in the writing of children, adolescents, and adults from these groups.

For example, when a Vernacular Black English (VBE) speaker writes the sentence *Mickey have so many friend*, it illustrates two "home language" features: *have* rather than *has* and *friend* rather than *friends*.[55] Work in this area has identified home language features in the writing of VBE speakers, Hispanic and Indian bilinguals, and deaf users of American Sign Language.

Most of this work on the relation of home language to literacy learning explicitly advocates what Baugh[56] terms "ethnosensitivity" (rather than ethnocentricity) on the part of those teaching such students. In this view, an emphasis is placed on understanding and building on the cultural values and linguistic patterns of the non-mainstream students.

The work on literacy in community settings has found that literacy is not a single entity that occurs in different contexts, but that it is a social practice that varies according to the particular use to which it is put in each context. Likewise, the cognitive demands of writing (and the cognitive effects of learning to write) also vary according to particular uses.

For example, Scribner and Cole[57] studied writing and reading among the Vai in Liberia, where Vai, Arabic, and English are used both in speaking and for writing and reading. They found that the Vai, Arabic, and English literates they studied evidenced superior performance (over non-literates) on certain cognitive tasks. The specific cognitive tasks, however, in which each group of literates showed superior performance were closely related to the specific ways in which each group used writing or reading (e.g., the practice of letter writing in the Vai script seemed to increase "audience awareness" as a cognitive skill). This study provides, then, additional evidence that, as social (and literacy) practices vary from community to community, so do the characteristic cognitive processes of those who participate in these practices.

The Question of Dialect Interference

The question of whether, or to what extent, a student's home dialect actually interferes with learning to write and read has been a controversial one, both in research and in the schools. The notion of such "dialect interference" was modeled on that of language interference, which occurs when a speaker who knows two languages uses features from one language while speaking the other language. For example, a native speaker of Spanish may write, in English, a sentence which places an adjective after a noun (as is the rule in Spanish), rather than before the noun (as is the rule in English). Bilingual students who know Spanish and are learning English sometimes do this, in fact, and it is an example of interference from Spanish. When such students are consciously made aware of the contrastive differences between Spanish and English in this type of construction, they can learn to edit their writing accordingly. Increased fluency in (and tacit knowledge of) English may also decrease such instances of interference.

Although dialect interference appears to be more or less parallel to *language* interference, the analogy is a limited one because nonstandard dialect speakers do not change languages when they use either a standard feature (e.g., including the plural *-s* suffix) or a nonstandard feature (e.g., omitting that suffix). Moreover, it is rare for nonstandard dialect speakers to use nonstandard features 100% of the time; instead, like all speakers of English, their use of such features varies according both to the linguistic context (of the sentence) in which the feature is used and to the social situation. If, however, they use a nonstandard feature a high percentage of the time, it is more likely that such use would cause them difficulties in learning to write and to read.

A number of studies have investigated the effect of nonstandard dialects on learning to read, and their results are mixed and inconclusive. Hall and Guthrie[58] critically reviewed these studies, concluded that many of them were flawed, and called for new studies that would move beyond the experimental situation and focus more on the ways in which nonstandard dialects were used in real-life contexts, rather than solely on their linguistic structure. Since then, some studies, notably Heath's,[59] have done that and found that the ways in which language is used in some communities can conflict sharply with the ways in which children are expected to use it--for speaking, writing, and reading--in school.

As discussed above, Heath's ethnographic study[60] described the cultural and linguistic differences in two non-mainstream communities which interfered with the children's success in school. Moreover, she worked with local teachers to devise instructional strategies that were sensitive to these differences and that provided the children the meaningful experience with written language needed to learn to write and read. Her book[61] reports in detail both on her research and on the successful teaching strategies.

In addition to important studies such as Heath's, and in spite of Hall and Guthrie's criticism of its experimental nature, a study by Labov provides convincing evidence of some dialect interference from linguistic features of VBE in reading standard English. VBE speakers often omit the final *-ed* suffix of some words in spoken language. Labov's experiment attempted to determine whether or not such speakers comprehended that *-ed* when reading, even though they often omitted it when reading aloud. He found that his junior high school subjects comprehended the suffix only 35-55% of the time, indicating significant interference with comprehension. Further testing indicated that those speakers who omitted the *-ed* less often comprehended the test sentences more accurately. While Labov found that linguistic differences between dialects do cause some interference in comprehension, he originally cautioned that he did not see this as the major cause of reading failure among VBE speakers; rather, he saw that failure as the result of "political and cultural conflict within the classroom," with Black English the symbol of this conflict. More recently, however, Labov has attributed more of the problem to linguistic differences because "we know more about the structural

differences between Black English and standard American English than we did ten years ago due largely to research conducted by Black linguists in the 1970s." He continues, however, to affirm the importance of teacher attitudes toward Black English in the cultural conflict within the classroom.[62]

A study of dialect interference in the writing of black and white non-standard dialect speakers similarly showed a significantly higher percentage of suffix omission in the writing of those who omitted the suffix in spoken language.[63] This study looked at *-ed* and *-s* suffixes, as well as at other linguistic features of VBE and revealed a complex picture of dialect interference in writing: though it clearly is not the only explanation for the occurrence of nonstandard features in student writing, there is, nevertheless, evidence that dialect is one contributing factor.

Several reviews of the question of dialect interference in writing have concluded that such interference does not exist, although none of them have refuted the existing evidence.[64] Hartwell, moreover, assumes that nonstandard dialect speakers should be able to use their intuitive knowledge of English to edit nonstandard features out of their own writing.[65] This assumption is based on another assumption--that all speakers of English share the same linguistic competence. As we have seen in the review of studies above, this is not the case.

The claim that dialect interference does not exist is often used to buttress arguments against the teaching of "traditional, school-book" grammar and for the teaching of more global concerns of writing such as the development of ideas and coherence. Most writing researchers agree strongly with the importance of a primary instructional focus on more global concerns and with the claim that the traditional teaching of grammar does not improve writing.[66] Nevertheless, it does not serve nonstandard dialect speakers well to ignore evidence of the differences between dialects that do exist. The question is not whether to teach mechanics and standard grammar, but how. Farr and Daniels[67] review in detail what we know about nonstandard dialects and suggest how to improve the teaching of writing to speakers of such dialects. Moreover, we know that an understanding of specific differences in linguistic competence and in ways of using language by one's own students can be used effectively to improve instruction.[68]

In addition to the possibility of grammatical interference between non-standard dialects and standard English, recent research has shown that discourse patterns (patterns of language which link sentences together to form a coherent discourse, rather than a random set of sentences) differ from one cultural group to another.

In a series of studies in elementary school classrooms, Michaels identified two discourse patterns used in oral narratives during the classroom event called Sharing Time, or Show and Tell.[69] One of the patterns was used by middle class mainstream children in telling their stories, and the other pattern was characteristic

of VBE-speaking black children. The mainstream pattern closely resembled the kind of pattern expected in school literacy--in the texts that children read and in the writing they are taught to produce. This pattern emphasizes explicit lexical ties--specific words, that is, to show the connections between thoughts or events (e.g., *then*, *so*, rather than *and*). The VBE pattern, on the other hand, showed a less explicit connectedness; the ties between thoughts and events were there, but more implicitly, and not shown with specific words.

Other research also has yielded similar findings about discourse patterns among VBE-speaking black Americans. Smitherman[70] describes black adult narrative style as "concrete narrative...(whose) meandering away from the 'point' takes the listener on episodic journeys."[71] In addition, Erickson found in a study of black adolescents informally discussing politics that shifts from one topic to another were not explicitly stated, but, rather, that meanings had to be inferred from a series of concrete anecdotes.[72]

Clearly, those students who unconsciously know and use, as part of their native communication systems, discourse patterns which do not match those of school literacy presumably have more difficulty becoming literate than those whose native discourse patterns do match those of school literacy. As we have pointed out in our discussion of emerging literacy among preschoolers, however, becoming literate is not just a matter of learning new language structures, important though these may be. Interference in this learning process also comes from differences in the ways language--both oral and written--is used in various communities.

Philips studied the language use of Warm Springs Indian children at home and at school.[73] She found that differences in social roles of speakers and listeners between Anglo mainstream teachers and the Warm Springs Indian community accounted for some of the difficulties the Indian children were having in school. Anglo teachers perceived these Indian children as being "non-comprehending" because of their characteristic lack of response in certain classroom situations. Philips determined that this lack of immediate response (e.g., to teacher questions or directives) was not because the students did not understand the linguistic structures being used, but "because they [did] not share the non-Indian's assumption in such contexts that use of these syntactic forms by definition implies an automatic and immediate response from the person to whom they were addressed."[74] In contrast, in communicative contexts (in school) in which the roles of speakers and listeners resembled those characteristic of language use at home, the children were responsive.

To sum up, all the studies of conflicts between ways of using language by different cultural groups make it clear that such differences can be extensive and deeply-engrained.[75] Although it is not entirely clear how these differences precisely affect learning to write and to read, it is clear that they do, and more well-designed studies will doubtless help us identify more specifically the interaction of cultural and linguistic differences with writing and reading instruction in standard English.

In the next section, we will consider the implications of what we now know, including a brief review of two studies which have successfully improved literacy instruction for non-mainstream cultural groups of students.

Implications for the Classroom

The most important implication of all that we now know about language variation in this country is the need for teachers to become aware of the specific linguistic and cultural differences among their students. To be effective in teaching writing and reading, teachers need to be "ethnosensitive," rather than ethnocentric. That is, we cannot assume that our own views of the world, or ways of using language in that world, are shared by others. Almost by definition our own cultural orientation will not, in many ways, be shared by students who do not come from mainstream, middle class families. Such students, like all students, bring to school with them much knowledge about the world, and about how to use language in that world, which they have learned from birth in their homes and communities. We need to find out what this knowledge entails, so that we can build on it to provide effective instruction. In addition to reading about the results of linguistic and ethnographic research on non-mainstream groups, teachers can identify characteristic patterns in the way their own students use language and view the world. Many teachers do this by engaging in oral and written dialogues with students on topics of interest to, and often chosen by, the students.

In addition to being "ethnosensitive," teachers can improve instruction for non-mainstream students by structuring activities which will provide the kind of intensive, meaningful interaction with written language that is required for anyone learning to read and write. Several studies have shown that, when such experience is provided as a large part of time in school, students make substantial progress in becoming literate. Some of these studies have been done in classrooms of mainstream children,[76] and others have been done in classrooms of non-mainstream children.[77]

The classroom literacy activities in these studies share a common underlying principle that may account for much of their effectiveness with students. The activities do not focus explicitly on teaching the *forms* of school literacy (e.g., the discourse structures with lexical connectors or standard English grammatical patterns), even though these forms are abundantly available both in oral language and in written materials. That is, students have multiple and redundant opportunities to become familiar with these language resources (in dialogue with the teacher and in reading journals, letters and books), but these resources are less emphasized than the interaction itself. The interaction, between writers and readers, for example, is functional; it exists for communicating thoughts, ideas, and other information among members of the classroom community. In short, students have plenty of opportunity not only to become experienced with the forms

of literacy, but also, and perhaps more importantly, to begin to operate in new social roles as writers and readers.

Staton provides an example of this.[78] She studied the use of dialogue journals in a sixth-grade classroom in a multi-cultural section of Los Angeles (the students in this particular classroom, for example, spoke thirteen different languages). Their teacher, who had been using dialogue journals for seventeen years, asked her students to write (in English) daily entries in the journal, to which she wrote short responses. Even those students who had minimal literacy skills in English were asked to write, as best they could, at least three sentences. The teacher did not evaluate this writing for mechanics, but, instead, responded to it as a natural form of communication between two people who were writing and reading rather than talking.

Analysis of the journals over the course of a year showed substantial growth in writing,[79] including an increase in quantity, elaboration of student-initiated topics, fluency, and control of English syntax.[80] Moreover, these students experienced, some for the first time, writing and reading for a purpose of their own. They eagerly read the teacher's responses to their own entries and wrote copiously--some even ending the year with several filled notebooks comprising their year-long dialogue journals.

Heath and Branscombe also showed that structuring activities so as to create a community of writers and readers helps students learn how to use writing and reading in mainstream ways.[81] In this study, ninth-grade remedial track English students (primarily non-mainstream blacks and a few non-mainstream whites in a southern city) being taught by Branscombe wrote and read long letters to and from Heath and her family, whom the students did not know; they also corresponded with Branscombe's regular track eleventh-grade students.

As in the journals of the Staton study, the letters emphasized communication--the interaction between writers and readers--rather than the direct teaching of literate forms. Branscombe's students, over the course of the year, became comfortable operating in these roles of writer and reader and learned much about school literacy in the process. They learned, for example, that expository writing required "linguistic devices and background information in explicated form if the addressee is to understand the (writer)."[82]

We have learned from these and other studies that three factors are crucial for effective literacy instruction for culturally non-mainstream students. First, teachers need to be aware that nonstandard dialect features reflect linguistic differences among varieties of language and not linguistic or cognitive deficits on the part of the speakers who use them. When teachers are not aware of this, their expectations of their students' abilities are lowered, and so, presumably, are the success rates of their students. Second, schools should provide non-mainstream students with substantial exposure to the linguistic characteristics of literate texts.

Third, schools should provide students substantial practice operating in social roles which use writing and reading as ways to communicate. Then students who begin school unfamiliar with mainstream ways of writing and reading can acquire the linguistic and cognitive knowledge they need not only to be successful in school, but to operate comfortably with literacy after they leave school.

WRITING AND READING IN THE WORKPLACE

So far we have discussed what is known about how children learn to write and to read, including, in the previous section, how best to facilitate this learning among culturally non-mainstream students. Now we will turn our attention to what is known about writing and reading in the workplace, focusing particularly on writing. We focus on writing because it is often the more neglected half of literacy in the workplace. Within this area, two primary issues of immediate concern to educators emerge:[83]

1. How applicable to work contexts is school writing instruction? Is experience in writing gained at school similar to that gained in the workplace?

2. How important are writing and reading abilities in the work world and in job success?

To explore these general concerns we need to pose more specific questions and assess the available evidence from a variety of different work settings. Beginning with the contrast between school literacy instruction and workplace literacy, we will optimistically start with what may be seen as the best of school-based instructional experience. The two instructional studies discussed in the previous section suggest some of the most important characteristics of school writing success.[84] Other studies of effective instruction, and the principles underlying successful instruction, are reviewed in Farr.[85] These principles involve, among other things, what Heath and Branscombe refer to as "a rich responsive context."

In providing this context for students who, in this study, were mainly non-mainstream black and white students, school instruction focused on learning both through exposure to a variety of texts--from letters to bureaucratic instructions to informal narratives and formal prose--and by focusing on repeated trial and error in different writing tasks with teacher-audience feedback. In such responsive contexts Heath and Branscombe suggest students become able "to generate the needed internal rules or knowledge about how to make writing work to communicate their feelings and knowledge."[86] The expression of such knowledge as a coherent text, of course, is the main goal of school writing.

In looking at literacy in the workplace we see a rather different picture. In several studies Mikulecky found that writing was used as just one part of a

chain of activities.[87] He studied 43 work settings in which writing was used to complete a job task; in 90% of those settings, several other modalities of communication also were used during the task. In contrast, school writing is a self-contained task on its own and for its own sake. Thus, the essential focus of school writing is on the generation of coherent text, whereas the focus in work settings is on the successful completion of a chain of activity.

Odell[88] and Odell and Goswami[89] studied a number of varied work contexts in some detail, including the writing of social caseworkers and clerical and administrative workers in an insurance company. Their general conclusions are that the functions of workplace writing vary distinctly from those taught in writing classes, whether at school or college level. Considering these findings as well as those of Mikulecky and of Jacobs, who both have looked at blue collar as well as low-level white collar work settings,[90] we can list in order of importance an over-all view of the most frequent functions of writing in the workplace. This list of functions also shows the most likely written medium for each function:

1. To record: for example, to fill in forms, keep notes, write reports

2. To inform: for example, to write memos, letters, notices

3. To instruct: for example, to prepare instruction sheets, booklets, memos

4. To persuade, change opinions: for example, to compose letters, memos, reports

5. To express a personal opinion, feelings: for example, to write reports and evaluations, memos, letters, notes.

From this list we can see that some forms, such as letters or memos, perform several functions. Also, as recent research in a large corporation shows, some of the more functionally specific items, such as written technical reports, can be used for more than conveying objective technical information; they also can become an indirect way of expressing personal opinions and feelings.[91] Thus, in workplace writing, several different functions overlap; it is this multi-purpose, multi-functionality which makes work writing different from school writing. This multifunctionality requires different considerations and expectations on the part of both writers and readers. For example, much business writing does not observe the formal-informal prose distinction, such as that between business correspondence and informal personal letters usually made in school instruction.

Moreover, as Odell and Goswami point out, the writing and evaluation of written performance may have critical consequences for keeping a job or for promotion.[92] School writing, of course, rarely has such direct penalties or rewards.

However, in order to answer our first general concern we need to look in more detail at whether school-learned skills are of special use in the workplace, and whether job-related experience in writing can be gained in the workplace.

In a review of surveys of writing in different settings, Anderson showed that there were different evaluations of the functions and importance of writing between college-educated, managerial personnel and lower-level white and blue collar workers.[93] Thus, the educational level attained by workers can be of critical importance in evaluating the usefulness of writing techniques on the job. Several recent studies of college graduates have found that writing is considered by employees to be the most important job-related skill they took from college into the work world.[94]

Several studies have explored the writing skills valued in managerial work and found that over-all clarity, conciseness, and objectivity are given as most useful, before any concern is listed with basic mechanics or stylistic concerns. The "model of good writing," then, that emerges from research with managerial employees is one in which style and elegance of self-expression are less valued than the clear presentation of facts in a concise and to-the-point form, with control over basic mechanics and grammar taken for granted. Bataille has suggested that preferences for business writing vary according to whether the intended audience consists of superiors, in which case conciseness is seen as most important, or others outside the organization, in which case clarity is paramount. In a study at Exxon, Paradis and co-researchers found that the aims or goals of organizational writing at the management level could be listed as follows: (a) to objectify evidence, (b) to instruct others, (c) to justify (d) to plan and organize.[95]

The "model of good writing" revealed by all these studies stresses communication of information, organization, accuracy, and accountability, more than self-expression which, as we have seen, is a part of effective writing instruction in school. However, when it comes to the actual composing process, managers are expected to follow the usual "well-taught" process of planning, drafting and revising that characterizes most school and college composition courses.[96]

Do these considerations, however, apply to lower-level white collar and blue collar work writing? Detailed studies of clerical and secretarial work have shown that, while the basic writing skills of grammar, mechanics, and spelling are most essential, many secretarial and clerical work tasks involve other skills that are not necessarily taught in school.[97] In detailed studies of government agency clerical work, both Hoagland and Crandall found that clerical workers spent a great deal of time translating written narrative reports into standardized forms. In these tasks, they often were called upon to work with material on subjects with which they were not familiar. Thus, secretaries had to be able to repair and edit, but also to interpret others' written texts, skills which include but also go beyond those taught in school writing courses.

Other studies of clerical work in banks, retail sales, and technical service jobs give a different picture. They have found that few writing skills are required, that mostly routine tasks are limited to prepared forms and telegraphic style communications.[98] Similar findings apply to most blue collar jobs where writing needs are very limited. In short, school taught writing skills are at best a preparation for decoding, or reading, but not always for encoding, or writing, the written materials which are part of many work routines.

Given that so many work writing tasks are different in goals and aims from those of school instruction, we might expect a high level of on-the-job training. In their recent compendium of research on writing in non-academic settings, Odell and Goswami have shown that while, in the past decade, research into workplace writing has grown, the numbers of specific training courses have not increased greatly.[99]

One reason may be that--as Redish has suggested, based on examining the on-the-job effectiveness of professional writers--workplace learning is essentially a socialization process.[100] In this process, the writer learns through informal feedback and repeated practice on work tasks. She points out that such learning may be cumulative and may result in decreases as well as increases in effectiveness.

The importance of on-the-job learning also is emphasized by Stitch, who suggests that many lower-level workers need to learn the tasks necessary to operate complex advanced technology systems on the job.[101] Such learning primarily involves reading skills necessary to understand the instructional sequences for complex machines. This suggests a paradox. On the one hand, the design of machines increasingly attempts to make the interaction of human beings with the machines ever more simple. On the other hand, learning to make full use of even "user-friendly" machines requires specialized literacy techniques that school writing and reading instruction could help prepare students for.[102]

At the college-educated upper managerial level, learning on the job is again seen as very important. More than 70% of employees surveyed in one study reported that their writing had improved during their work experiences.[103] Similarly, studies of non-college educated workers found that necessary literacy skills also are taught on the job, through an informal process of learning from those more experienced in the tasks, since these are repeated with great frequency[104] and require an interaction of different people to produce a finished product.[105]

In fact, one of the most important features of corporate writing, at both the lower and higher clerical/administrative and managerial levels, is that it is collaborative, and so necessarily open to job experiential learning.[106] Odell, investigating many different writing tasks in a large insurance corporation, has shown that workplace writing varies over time, becoming more informal as workers

become more experienced at judging the specific audiences for different written products.[107] Clearly, such audience-tailored specificity is only possible through on-the-job learning.

We can conclude that writing in the workplace, while building on basic skills learned at school, does have some very different requirements and functions. The main thrust of the best in school writing instruction is aimed to lead toward self-motivated and self-generated text production. Workplace writing focuses on a very different set of communicative modalities.

In workplace writing, the focus is on the recording and transfer of information, and elegant self-expression is usually considered out of place. However, underlying all the stated goals and aims of business writing for clarity, conciseness, and organized brevity and, thus, a smooth information flow, there are many stylistic and rhetorical assumptions that risk being overlooked when workplace writing is studied.[108] What Odell and Goswami refer to as the "tacit knowledge" component is a critical part of much work writing and covers a great deal of the worker's knowledge of her/his position in the organization, of the audience for the text, and of the organizational importance of the communication.[109] This knowledge touches directly upon our second area of concern: how important is literacy in the work world?

To address this concern we must first ask more specifically who the workers are and what jobs they do. Anderson, surveying studies of workplace writing, has pointed out that there is a major division between the college educated and non-college educated, for this division can indicate not only what is usually referred to as the distinction between technical, managerial positions and lower-level white and blue collar jobs, but also to a basic difference in the employees' educational experience of literacy. Many of the differences in the importance of literacy skills may be attributable to particular jobs, however, rather than to pre-employment training. If the needs of different job tasks and the structure of the occupational organizations in different companies are considered in some detail it can be seen that similarly described jobs may differ in their actual performance.

It is also necessary to ask how the importance of literacy skills can be evaluated. The evidence available suggests that there are at least three ways to consider the importance of writing: (a) the amount of time spent on writing in any setting; (b) the type of writing and its importance within a task analysis of any particular job; and (c) the perception, from the workers' point of view, of the importance of writing as a work-related skill, including its place in their chances for advancement. Let us consider each approach in turn.

First, looking at writing as time spent on the task, survey evidence suggests that college educated workers spend as much as seven times the amount of work-time writing than do blue collar workers.[110] In a comparison of several very different occupations, government and service agencies were found to require 29%

of job time to be spent writing, whereas retail and blue collar personnel spent about 13% of their time in writing tasks. However, these broad categorizations need to be looked at more carefully, since detailed studies of single industries, such as Jacobs's study[111] of a dairy, indicate that there are clear differences between types of work settings. It is also the case, as shown in a study of business management graduates, that there are differences among occupations all classified as advanced management and technical; a comparison study found that accountants spent 25% of their work time in writing tasks; bankers 15%, plant management 14%, and office management 9%.[112]

Second, the type of literacy tasks and expectations within job categories can vary. Jacobs's detailed ethnographic study shows that the distribution of workers' time did not match usual expectations; that is, office/clerical workers actually spent less time on writing tasks than did blue collar stock/warehouse workers. Such findings lead us to consider what kinds of writing tasks are being examined by researchers in specific work settings and to analyze job tasks. Comparing managerial and blue collar job tasks, Mikulecky found that routine writing tasks such as filling in forms, order sheets, and brief reports accounted for 30% to 50% of all workers' time.[113] This study also showed that professional and clerical staff spent a higher proportion of their time than did blue collar workers on such tasks as writing reports and notes.

As noted earlier, detailed studies have shown that such work often requires clerical workers to undertake considerable independent composing and translation of narrative materials into formal reports, often on subjects about which the clerical staff have no expert knowledge. Thus the perceived importance and difficulty of the writing tasks cannot be known from a general description of work categories, nor from general survey interviews with employers or management not close to the actual work situations.

This limitation of descriptive and management survey approaches to assessing the importance of literacy on the job suggests a third approach, focusing on how employees themselves evaluate the importance of literacy skills in their occupations and in their career success. A survey by Storms of business school graduates employed in managerial positions showed writing skills to be considered very important to job success; over 74% responded that the ability to write was important to their career and, of these, 30% thought that writing was critically important.[114] Another study of engineers found that 73% of science graduates employed in managerial and technical positions said that writing skills had helped their career advancement.[115]

In studies of workers who have not completed college, less attention has been given to how employees evaluate the importance of literacy skills in their work, though prospective employers consider writing part of basic literacy. Studies of office and clerical workers have shown that basic skills of "clear and legible

writing and competence in grammar and spelling" are given as major job requirements.[116] Nonetheless, as we have pointed out, in actual tasks performed by many clerical workers and secretaries, writing skills are considerably more advanced, requiring selection and transfer of information that goes beyond repetitious basic tasks. Moreover, at both college and non-college educated levels, literacy skills are confounded with communication skills so that writing and speaking/oral presentation of information become confused.

The overall picture is that literacy skills do help job advancement and conduct, but it is not clear exactly how these skills are evaluated or rewarded as part of employability and career prospects. There seems to be a much better understanding of literacy skills needed for managerial and advanced technical careers than of those required in lower-level white collar work. At this level, literacy can either be seen as restricted to very basic skills or be confounded with other behavioral traits such as dependability. Crain conducted a survey for the National Institute of Education of 4,080 personnel managers focusing on the characteristics sought in young adults for entry level jobs. The survey revealed that, while 65% of the managers thought basic literacy skills were important, only 23% thought that any advanced skills could be useful; many more stressed dependability and oral skills as important.[117] Thus, although we have some information about literacy in the workplace, no clear picture emerges of the specific literacy skills that could help young people to find entry level jobs with good prospects.

Having identified some gaps in our knowledge, let us conclude with some suggestions for future research.

Research indicates that many similarly described jobs may differ in the literacy tasks they entail. Detailed, on-site investigations are needed to find out the real extent and nature of literacy tasks involved in any single occupational category. For example, not all warehouse workers require the same skills. Some warehouses are computerized at the level of stock retrieval and storage, while others are automated only at the level of office stocktaking. In any analysis of writing and reading requirements, the specific operational tasks need to be examined in context during actual performance. Such inquiry requires detailed ethnographic methods rather than survey methods.

There is also a need to examine both employers' and employees' perceptions of the literacy requirements of different occupational positions, with special attention to how these perceptions meet or differ. Crain's survey[118] of the range of literacy skills considered important or useful by employers rarely includes specific mention of writing. Reading and speaking skills are mentioned most often. The writing demands of most jobs, other than those for professional writers, are usually a hidden dimension of occupational tasks. In professional and managerial work, writing skills are taken for granted; in routine clerical, service and sales positions, writing is viewed as limited to small, pre-formatted tasks such as

filling out forms and orders, and filling in service reports in telegraphic style. Little recognition is given to what Odell has called "the tacit component" in business writing: interpreting and reformulating information for formal reports, and judging the correct level of specificity and formality of style.[119] How literacy skills, requirements, and talents are judged is often a situated judgement, apart from more formal assessments of job efficiency and occupational needs. Thus we need a better understanding of how both employers and employees perceive the literacy demands of specific tasks.

Given the current concern with target areas of employability, particularly in entry level jobs, the need to refocus literacy programs must be considered. As is often commented upon, vocational education has failed to target adequately the skills that are at once general enough to allow for employment flexibility and specific enough to relate to actual job needs of contemporary employment situations.[120] This failure points to the need for further research into the ways in which literacy instruction can be reshaped for programs that truly focus on literacy in the workplace.

CONCLUSION

The discussions we have presented suggest broad issues that any program aimed at improving students' writing and reading abilities must take into account. First, we have emphasized the complexity of the developmental character of learning to write and read, noting in our discussion of children's early writing and reading that such development has cognitive, linguistic, and social dimensions. We suggested not only that children's literacy development occurs in various contexts, but also that children's literacy learning is influenced in important ways by the particular social roles they observe and adopt in those contexts. Second, in our discussion of literacy and language variation, we pointed to the important cultural differences in the patterns of language use and form among the groups that make up the families of the school population in the United States. And third, in our discussion of literacy in the workplace, we drew particular attention to the ways in which institutional settings--their structures, the power arrangements in them, the goals they are designed to meet--influence and sometimes determine the literacy abilities that individuals develop and come to value. These issues hold several implications for educators:

1. Recent studies of young children's early literacy development suggest themes that pertain to the experience of older children and adolescents as well. First, children all along the developmental continuum demonstrate their use of powerful cognitive strategies in constructing for themselves the underlying principles of written language. Their experiments with written language, often conducted in the context of play, provide evidence of their linguistic powers to segment, to categorize, and to represent for themselves several levels of structure. Most of the cognitive work of written language development operates on a non-

conscious level, much as similar processes operate nonconsciously in children's spoken language development.

Second, children use these cognitive strategies in specific social practices. There may be universal processes in human cognition, but literacy learning is a matter of learning particular practices that vary from culture to culture, and even among social groups within a culture. In this respect, children's learning is usefully understood as a kind of literacy apprenticeship, in which they learn the knowledge, skills, attitudes, and values of the readers and writers with whom they come into contact. This is not to say that children merely imitate the behavior they observe; there is much room for improvisation and creativity as children adapt the social practices they observe to their own individual interests and needs. But becoming literate is nonetheless always a matter of learning the knowledge and practices of specific communities of writers and readers. The challenge for educators is to establish the school as a productive community of writers and readers and, at the same time, to create circumstances that encourage individual children to make full use of their cognitive capacity to make written language their own.

2. Students of any age bring to school the linguistic resources they acquired from families, neighbors, and others associated with their cultural identities. In some cases the cultural "fit" between the already-formed linguistic resources of the student and the linguistic and literacy demands of the school is quite close; in other cases it is not. Such mismatches require educators to devise ways for providing every student a full chance to succeed in school writing and reading tasks, and indeed to succeed more generally in the whole of school work, since success in school work is largely based on observing patterns of behavior and thought associated with particular kinds of literate language use.

3. Too often school instruction in writing and reading fails to prepare students for the tasks they will be asked to perform in the workplace once they have finished school. One clear implication is that educational programs aimed explicitly at preparing students for work should provide literacy instruction that anticipates the specific kinds of experience students are likely to encounter on the job. But another implication is that educators need to consider how students' experiences in a more general curriculum, from elementary school through college, can best help them develop writing and reading abilities they can carry with them to situations beyond the world of school. One approach is to help students understand the roles of readers and writers in particular situations, and to show them how role and situation vary depending on institutional setting, on the purposes of both writer and reader, and on the nature of the larger activity.

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